Report on a Helicopter-Borne AeroTEM System Electromagnetic & Magnetic Survey

Aeroquest Job # 07100

Chenier Property

British Columbia, Canada
NTS 082E06

For

KOOTENAY GOLD INC.

By

AEROQUEST INTERNATIONAL
ADVANCED AIRBORNE GEOPHYSICS

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Mississauga, ON, L4T 3T1
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Report date: December 2007

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1. INTRODUCTION

This report describes a helicopter-borne geophysical survey carried out on behalf of Kootenay Gold Inc. for their Chenier project, near Grand Forks, BC.

The principal geophysical sensor is Aeroquest's exclusive AeroTEM II (Bravo) time domain helicopter electromagnetic system which is employed in conjunction with a high-sensitivity caesium vapour magnetometer. Ancillary equipment includes a real-time differential GPS navigation system, radar altimeter, video recorder, and a base station magnetometer. Full-waveform streaming EM data is recorded at 36,000 samples per second. The streaming data comprise the transmitted waveform, and the X component and Z component of the resultant field at the receivers. A secondary acquisition system (RMS) records the ancillary data.

The total survey coverage is 1158.1 line-km, of which 1134.4 line-km fell within the defined project area (Appendix 1). The survey was flown at 100 metre line spacing in an E-W survey flight direction. The survey flying described in this report took place from April 28th to May 6th, 2007. This report describes the survey logistics, the data processing, presentation, and provides the specifications of the survey.

2. SURVEY AREA

The Chenier property comprises 14 claim blocks that cover an area of approximately 6,569 hectares (65.7 square kilometres) in the Kelly Creek area north of Rock Creek in southern British Columbia. Most claims are within the Greenwood Mining Division with a smaller western portion in the Osoyoos Mining Division. The claim blocks are 100% owned by Kootenay Gold Inc.

The Chenier property is located 30 km north of the town of Rock Creek. Access to the eastern and central part of the property is 29.4 km north along Highway 39 from Rock Creek to the Chenier Main logging road, then west approximately 5 km to the central part of the property, climbing to the high land between Little Goat River in the north and Kelly River in the south. Numerous subsidiary gravel roads and logging spurs provide access to most of the claim area. The western part of the area is accessible by a long circuitous logging road that leaves Highway 3 just west of the Johnstone Creek Provincial Park, continues north and west skirting the Mount Baldy area, then east into the headwaters of the Kelly River and onto the western claims. The two access roads converge to within approximately 2 km of each other on the property, separated by a recently logged area. A large part of the area is logged and as noted above, numerous logging spurs provide access to much of the central part of the property.

The area is part of the Okanagan Highlands, located between the Thompson Plateau on the west and the Monashee Mountains in the east. Several deeply incised east-flowing rivers dissect the area, resulting in locally steep relief and elevations ranging from approximately 1000 meters in the Kelly Creek and Little Goat Rivers to approximately 1700 meters in the more mountainous central part of the property. Much of the area is covered by glacial overburden and vegetation is heavy with a diverse mixture of hemlock, spruce, fir, cedar and pine. Natural rock exposures at higher elevations are generally good, but at lower levels exposures are largely restricted to road banks or creeks or rivers.

There are no recorded BC Minfile occurrences on the property, but prospecting has discovered several new occurrences. The most important zones of mineralization are areas of vein and fracture controlled copper mineralization that are related to hematite and locally intense K-spar alteration in the northern part of the area. More widespread mineralization includes numerous quartz veins containing chalcopyrite, molybdenite, sphalerite or galena. Gold occurs in quartz veins and shears in the southwest part of the claim group and is anomalous in other base metal veins. Mineralization at Chenier has many similarities to the higher levels of an alkalic porphyry copper-gold system.

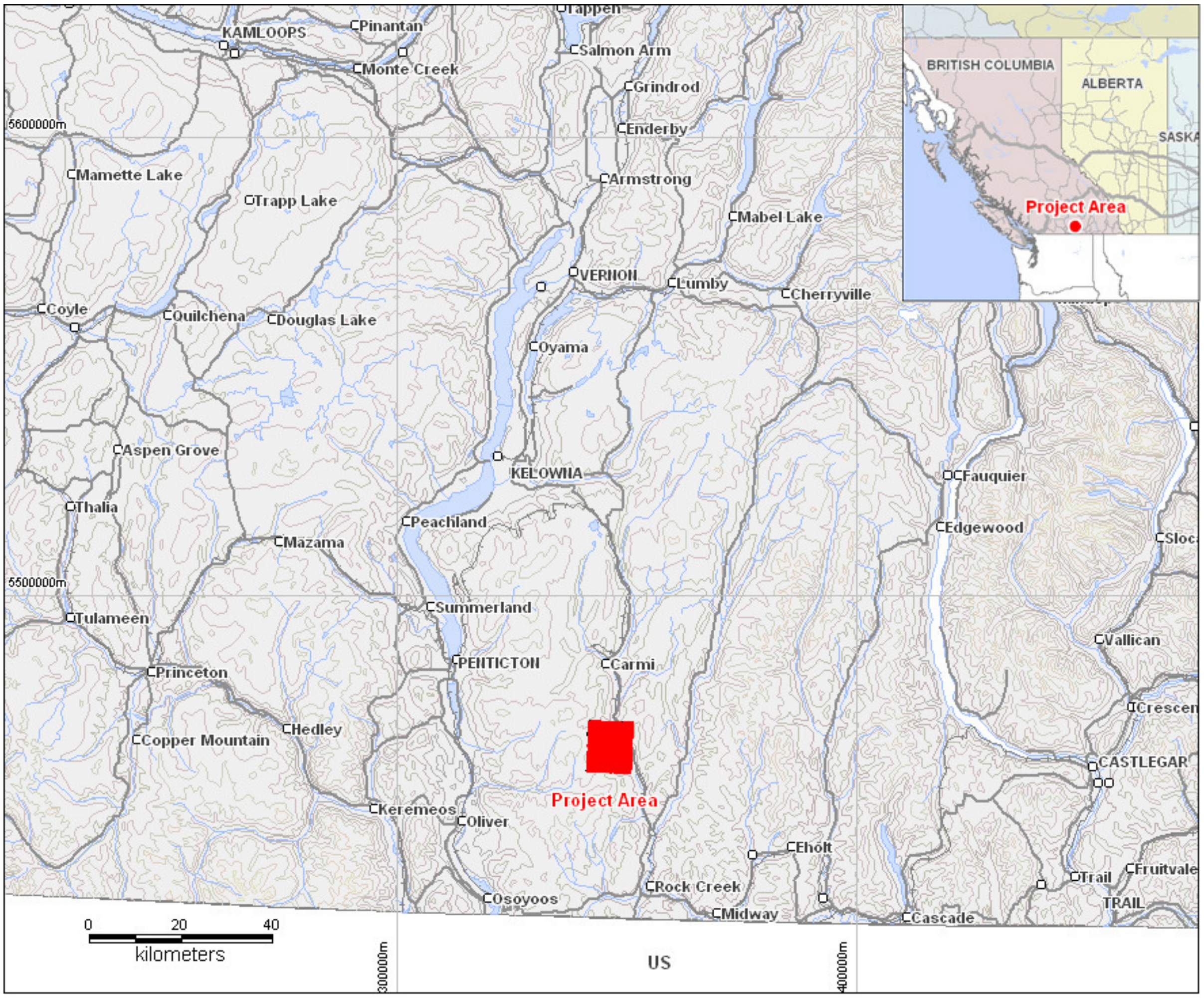


Figure 1. Project Area

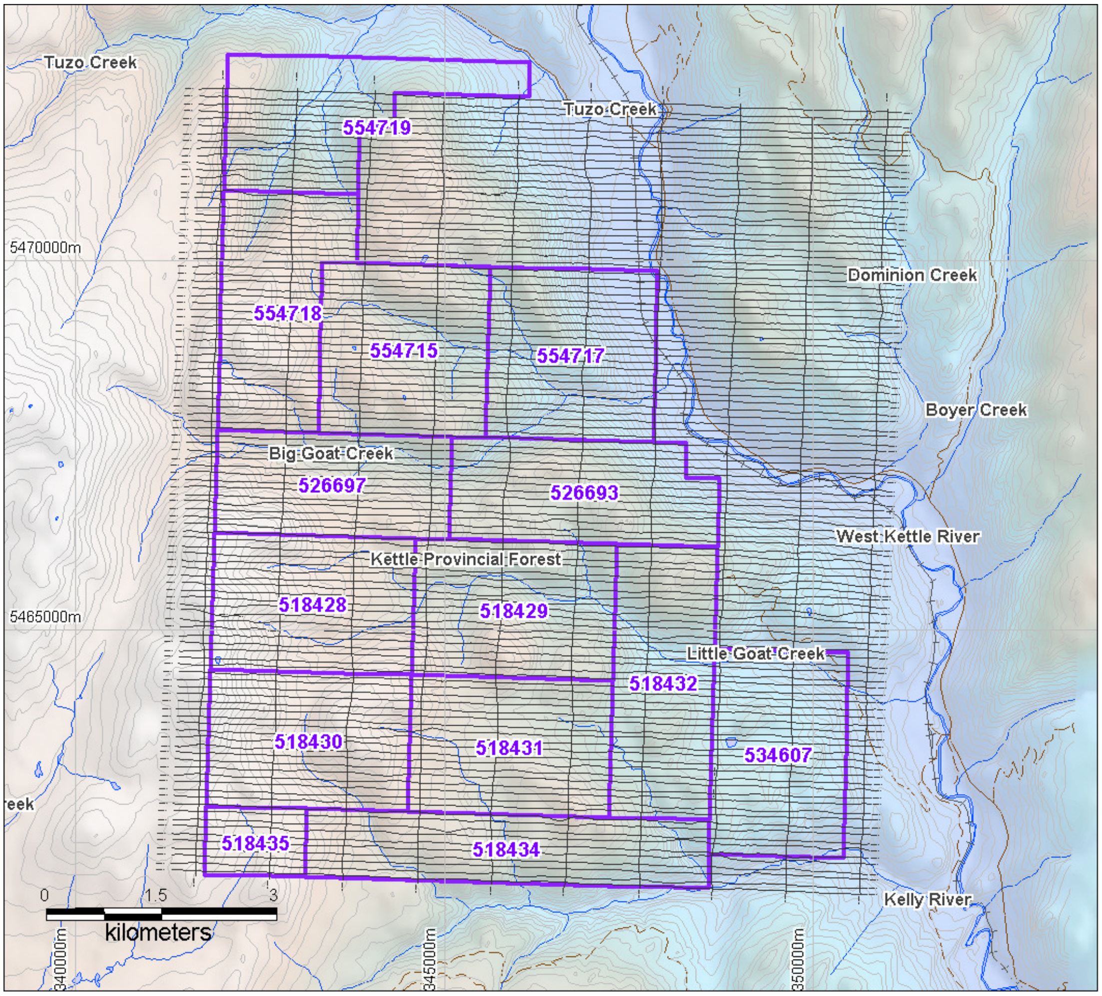


Figure 2. Chenier Flight Path and Mining Claims

3. SURVEY SPECIFICATIONS AND PROCEDURES

The survey specifications are summarised in the following table:

Project Name	Line Spacing (metres)	Line Direction	Survey Coverage (line-km)	Date flown
Chenier	100	E-W (92º)	1158.2	April 28 – May 6, 2007

Table 1. Survey specifications summary.

The survey coverage was calculated by adding up the along-line distance of the survey lines and control (tie) lines as presented in the final Geosoft database. The survey was flown with a line spacing of 100 metres. The control (tie) lines were flown perpendicular to the survey lines with a spacing of 1000 metres.

The nominal EM bird terrain clearance is 30 metres, but can be higher in more rugged terrain due to safety considerations and the capabilities of the aircraft. The magnetometer sensor is mounted in a smaller bird connected to the tow rope 17 metres above the EM bird and 21 metres below the helicopter (Figure 4). A second magnetometer is installed on the tail of the EM bird. Nominal survey speed over relatively flat terrain is 75 km/hr and is generally lower in rougher terrain. Scan rates for ancillary data acquisition is 0.1 second for the magnetometer and altimeter, and 0.2 second for the GPS determined position. The EM data is acquired as a data stream at a sampling rate of 38,400 samples per second and is processed to generate final data at 10 samples per second. The 10 samples per second translate to a geophysical reading about every 1.5 to 2.5 metres along the flight path.

3.1. Navigation

Navigation is carried out using a GPS receiver, an AGNAV2 system for navigation control, and an RMS DGR-33 data acquisition system which records the GPS coordinates. The x-y-z position of the aircraft, as reported by the GPS, is recorded at 0.2 second intervals. The system has a published accuracy of less than 3 metres. A recent static ground test of the Mid-Tech WAAS GPS yielded a standard deviation in x and y of under 0.6 metres and for z under 1.5 metres over a two-hour period.

3.2. System Drift

Unlike frequency domain electromagnetic systems, the AeroTEM II system has negligible drift due to thermal expansion. The operator is responsible for ensuring the instrument is properly warmed up prior to departure and that the instruments are operated properly throughout the flight. The operator maintains a detailed flight log during the survey noting the times of the flight and any unusual geophysical or topographic features. Each flight included at least two high elevation ‘background’ checks. During the high elevation checks, an internal 5 second wide calibration pulse in all EM channels was generated in order to ensure that the gain of the system remained constant and within specifications.

3.3. Field QA/QC Procedures

On return of the pilot and operator to the base, usually after each flight, the AeroDAS streaming EM data and the RMS data are carried on removable hard drives and Flashcards, respectively and transferred to the data processing work station. At the end of each day, the base station magnetometer data on Flashcard is retrieved from the base station unit.

Data verification and quality control includes a comparison of the acquired GPS data with the flight plan; verification and conversion of the RMS data to an ASCII format XYZ data file; verification of the base station magnetometer data and conversion to ASCII format XYZ data; and loading, processing and conversion of the steaming EM data from the removable hard drive. All data is then merged to an ASCII XYZ format file which is then imported to an Oasis database for further QA/QC and for the production of preliminary EM, magnetic contour, and flight path maps.

Survey lines which show excessive deviation from the intended flight path are re-flown. Any line or portion of a line on which the data quality did not meet the contract specification was noted and reflown.

4. AIRCRAFT AND EQUIPMENT

4.1. Aircraft

A Eurocopter (Aerospatiale) AS350B/A "A-Star" helicopter - registration C-FPTG was used as survey platform. The helicopter was owned and operated by Hi Wood Helicopters, Calgary, Alberta. Installation of the geophysical and ancillary equipment was carried out by Aeroquest Limited personnel in conjunction with a licensed aircraft. The survey aircraft was flown at a nominal terrain clearance of 220 ft (65 metres).

Figure 3. Helicopter registration number C-FPTG

4.2. MAGNETOMETER

The AeroTEM II airborne survey system employs the Geometrics G-823A cesium vapour magnetometer sensor installed in a two metre towed bird airfoil attached to the main tow line, 17 metres below the helicopter (Figure 4). The sensitivity of the magnetometer is 0.001 NanoTesla at a 0.1 second sampling rate. The nominal ground clearance of the magnetometer bird is 51 metres (170 ft.). The magnetic data is recorded at 10 Hz by the RMS DGR-33.

4.3. MAGNETOMETER II

In addition to the main magnetometer bird on the main tow line, the AeroTEM II system includes an additional G-828A magnetometer installed on the tail of the EM bird (Figure 4). The sensor is located 37 metres below the helicopter and has a superior nominal terrain clearance of 31 m. Data is recorded at 300 samples a second and down sampled to 10 Hz by the AeroDAS acquisition system.

Figure 4. AeroTEM II EM bird. Arrow indicates the location of the second cesium magnetometer sensor.

4.4. ELECTROMAGNETIC SYSTEM

The electromagnetic system is an Aeroquest AeroTEM II time domain towed-bird system (Figure 4, Figure 5). The current AeroTEM II transmitter dipole moment is 38.8 kNIA. The AeroTEM bird is towed 38 metres (125 ft) below the helicopter. More technical details of the system may be found in Appendix 4.

The wave-form is triangular with a symmetric transmitter on-time pulse of 1.10 ms and a base frequency of 150 Hz (Figure 5). The current alternates polarity every on-time pulse. During every Tx on-off cycle (300 per second), 120 contiguous channels of raw X and Z component (and a transmitter current monitor, itx) of the received waveform are measured. Each channel width is 27.77 microseconds starting at the beginning of the transmitter pulse. This 120 channel data is referred to as the raw streaming data. The AeroTEM system has two separate EM data recording streams, the conventional RMS DGR-33 and the AeroDAS system which records the full waveform (Figure 6).

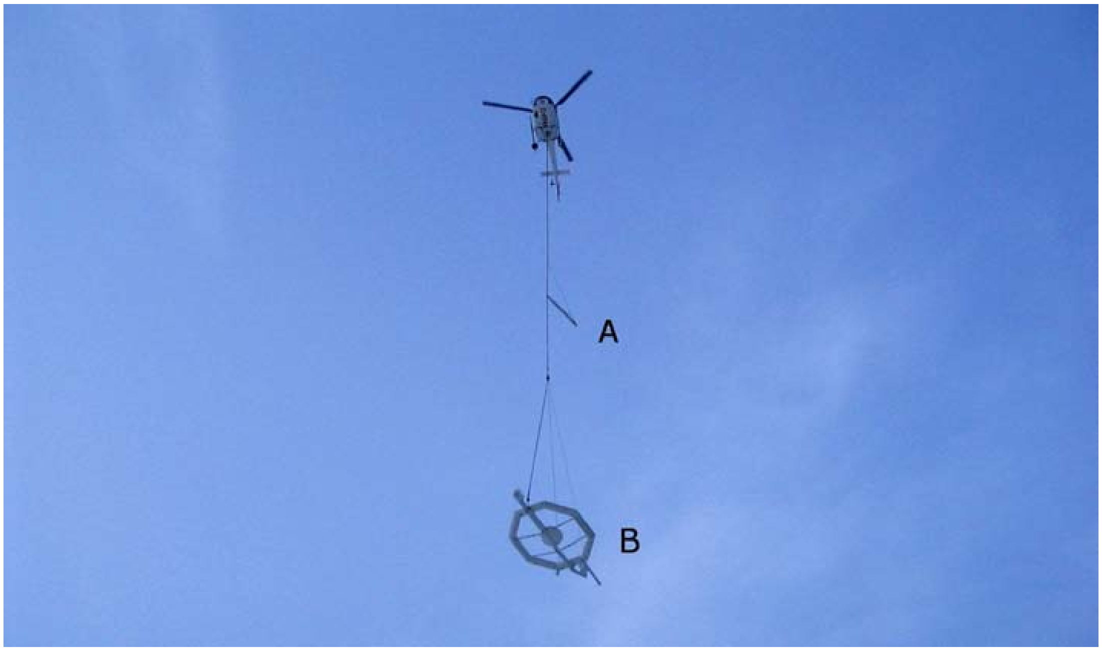


Figure 5. The magnetometer bird (A) and AeroTEM II EM bird (B)

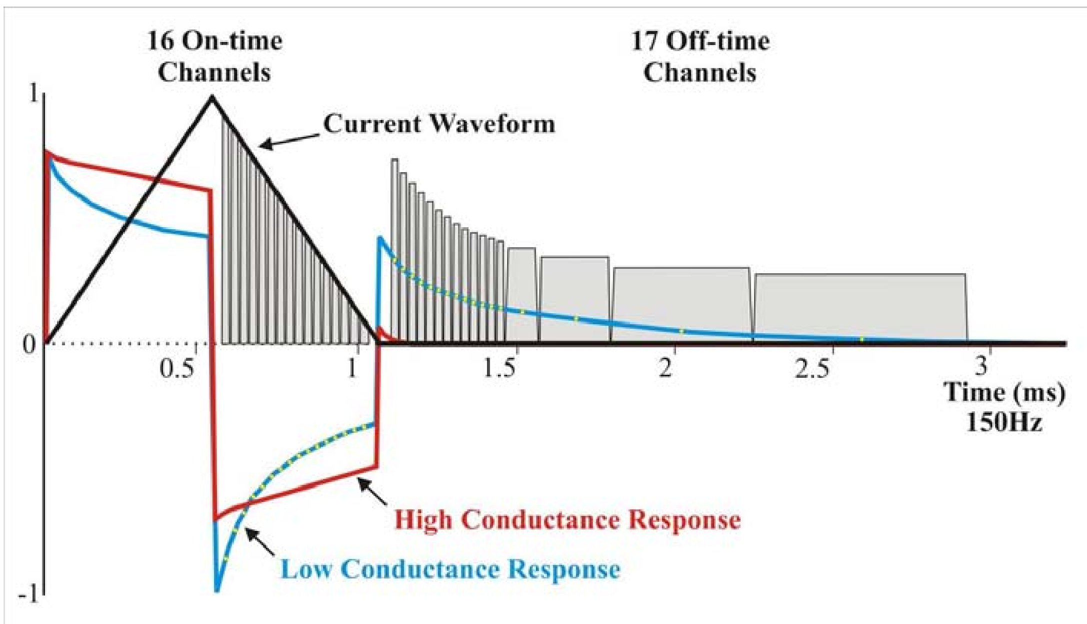


Figure 6. Schematic of Transmitter and Receiver waveforms

4.5. AERODAS ACQUISITION SYSTEM

The 120 channels of raw streaming data are recorded by the AeroDAS acquisition system (Figure 7) onto a removable hard drive. The streaming data are processed post-survey to yield 33 stacked and binned on-time and off-time channels at a 10 Hz sample rate. The timing of the final processed EM channels is described in the following table:

```
Average TxOn       -11.4221 us
Average TxSwitch   574.7094 us
Average TxOff      1118.4859 us
```

Channel	Sample Range	Time Width (us)	Time Center (us)	Time after TxOn (us)
On1	3 - 3	27.778	69.444	80.867
On2	4 - 4	27.778	97.222	108.644
On3	5 - 5	27.778	125.000	136.422
On4	6 - 6	27.778	152.778	164.200
On5	7 - 7	27.778	180.556	191.978
On6	8 - 8	27.778	208.333	219.755
On7	9 - 9	27.778	236.111	247.533
On8	10 - 10	27.778	263.889	275.311
On9	11 - 11	27.778	291.667	303.089
On10	12 - 12	27.778	319.444	330.867
On11	13 - 13	27.778	347.222	358.644
On12	14 - 14	27.778	375.000	386.422
On13	15 - 15	27.778	402.778	414.200
On14	16 - 16	27.778	430.556	441.978
On15	17 - 17	27.778	458.333	469.755
On16	18 - 18	27.778	486.111	497.533

Channel	Sample Range	Time Width (us)	Time Center (us)	Time after TxOff (us)
Off0	45 - 45	27.778	1236.111	117.625
Off1	46 - 46	27.778	1263.889	145.403
Off2	47 - 47	27.778	1291.667	173.181
Off3	48 - 48	27.778	1319.444	200.959
Off4	49 - 49	27.778	1347.222	228.736
Off5	50 - 50	27.778	1375.000	256.514
Off6	51 - 52	55.556	1416.667	298.181
Off7	53 - 54	55.556	1472.222	353.736
Off8	55 - 56	55.556	1527.778	409.292
Off9	57 - 58	55.556	1583.333	464.847
Off10	59 - 61	83.333	1652.778	534.292
Off11	62 - 64	83.333	1736.111	617.625
Off12	65 - 68	111.111	1833.333	714.847
Off13	69 - 73	138.889	1958.333	839.847
Off14	74 - 81	222.222	2138.889	1020.403
Off15	82 - 94	361.111	2430.556	1312.070
Off16	95 - 114	555.556	2888.889	1770.403

4.6. RMS DGR-33 Acquisition System

In addition to the magnetic, altimeter and position data, six channels of real time processed off-time EM decay in the Z direction and one in the X direction are recorded by the RMS DGR-33 acquisition system at 10 samples per second and plotted real-time on the analogue chart recorder. These channels are derived by a binning, stacking and filtering procedure on the raw streaming data. The primary use of the RMS EM data (Z1 to Z6, X1) is to provide for real-time QA/QC on board the aircraft.

The channel window timing of the RMS DGR-33 6 channel system is described in the table below.

RMS Channel	Start time (µs)	End time (µs)	Width (µs)	Streaming Channels
Z1, X1	1269.8	1322.8	52.9	48-50
Z2	1322.8	1455.0	132.2	50-54
Z3	1428.6	1587.3	158.7	54-59
Z4	1587.3	1746.0	158.7	60-65
Z5	1746.0	2063.5	317.5	66-77
Z6	2063.5	2698.4	634.9	78-101

Figure 7. AeroTEM II Instrument Rack., including AeroDAS and RMS DGR-33 systems, AeroTEM power supply, data acquisition computer and AG-NAV2 navigation system.

4.7. Magnetometer Base Station

The base magnetometer was a Geometrics G-859 cesium vapour magnetometer system with integrated GPS. Data logging and UTC time synchronisation was carried out within the magnetometer, with the GPS providing the timing signal. The data logging was configured to measure at 1.0 second intervals. Digital recording resolution was 0.001 nT. The sensor was placed on a tripod in an area of low magnetic gradient and free of cultural noise sources. A continuously updated display of the base station values was available for viewing and regularly monitored to ensure acceptable data quality and diurnal variation.

4.8. Radar Altimeter

A Terra TRA 3500/TRI-30 radar altimeter is used to record terrain clearance. The antenna was mounted on the outside of the helicopter beneath the cockpit. Therefore, the recorded data reflect the height of the helicopter above the ground. The Terra altimeter has an altitude accuracy of +/- 1.5 metres.

4.9. Video Tracking and Recording System

A high resolution digital colour 8 mm video camera is used to record the helicopter ground flight path along the survey lines. The video is digitally annotated with GPS position and time and can be used to verify ground positioning information and cultural causes of anomalous geophysical responses.

Figure 8. Digital video camera typical mounting location.

4.10. GPS Navigation System

The navigation system consists of an Ag-Nav Incorporated AG-NAV2 GPS navigation system comprising a PC-based acquisition system, navigation software, a deviation indicator in front of the aircraft pilot to direct the flight, a full screen display with controls in front of the operator, a Mid-Tech RX400p WAAS-enabled GPS receiver mounted on the instrument rack and an antenna mounted on the magnetometer bird. WAAS (Wide Area Augmentation System) consists of approximately 25 ground reference stations positioned across the United States that monitor GPS satellite data. Two master stations located on the east and west coasts collect data from the reference stations and create a GPS correction message. This correction accounts for GPS satellite orbit and clock drift plus signal delays caused by the atmosphere and ionosphere. The corrected differential message is then broadcast through one of two geostationary satellites, or satellites with a fixed position over the equator. The corrected position has a published accuracy of less than 3 metres.

Survey co-ordinates are set up prior to the survey and the information is fed into the airborne navigation system. The co-ordinate system employed in the survey design was WGS84 [World] using the UTM zone 11N projection. The real-time differentially corrected GPS positional data was recorded by the RMS DGR-33 in geodetic coordinates (latitude and longitude using WGS84) at 0.2 s intervals.

4.11. Digital Acquisition System

The AeroTEM received waveform sampled during on and off-time at 120 channels per decay, 300 times per second, was logged by the proprietary AeroDAS data acquisition system. The channel sampling commences at the start of the Tx cycle and the width of each channel is 26.04 microseconds. The streaming data was recorded on a removable hard-drive and was later backed-up onto DVD-ROM from the field-processing computer.

The RMS Instruments DGR33A data acquisition system was used to collect and record the analogue data stream, i.e. the positional and secondary geophysical data, including processed 6 channel EM, magnetic, radar altimeter, GPS position, and time. The data was recorded on 128 Mb capacity Flashcard. The RMS output was also directed to a thermal chart recorder.

5. PERSONNEL

The following Aeroquest personnel were involved in the project:

- Manager of Operations: Bert Simon
- Manager of Data Processing: Gord Smith
- Field Data Processor: Geoff Plastow
- Field Operator: Rafal Starmach
- Data Interpretation and Reporting: Sean Walker, Marion Bishop, Eric Steffler

The survey pilot, Colby Terrell, was employed directly by the helicopter operator – Hi Wood Helicopters.

6. DELIVERABLES

6.1. Hardcopy Deliverables

The report includes a set of three 1:10,000 map products as outlined below.

- TMI – Coloured Total Magnetic Intensity (TMI) with line contours and EM anomaly symbols.
- ZOFF1 – AeroTEM Z1 Off-time with line contours and EM anomaly symbols.
- EM – AeroTEM off-time profiles Z2 – Z16 and EM anomaly symbols..

The coordinate/projection system for the maps is NAD83 – UTM Zone 11N. For reference, the latitude and longitude in WGS84 are also noted on the maps.

All the maps show flight path trace, skeletal topography, and conductor picks represented by an anomaly symbol classified according to calculated off-time conductance. The anomaly symbol is accompanied by postings denoting the calculated off-time conductance, a thick or thin classification and an anomaly identifier label. The anomaly symbol legend is given in the margin of the maps. The magnetic field data is presented as superimposed line contours with a minimum contour interval of 20 nT. Bold contour lines are separated by 1000 nT.

6.2. Digital Deliverables

6.2.1. Final Database of Survey Data (.GDB, .XYZ)

The geophysical profile data is archived digitally in a Geosoft GDB binary format database. A description of the contents of the individual channels in the database can be found in Appendix 2. A copy of this digital data is archived at the Aeroquest head office in Mississauga.

6.2.2. Geosoft Grid files (.GRD)

Levelled Grid products used to generate the geophysical map images. Cell size for all grid files is 25 metres.

- Total Magnetic Intensity (TMI)
- AeroTEM Z Offtime Channel 1 (ZOFF1)

6.2.3. Digital Versions of Final Maps (.MAP, .PDF)

Map files in Geosoft .map and Adobe PDF format.

6.2.4. Free Viewing Software

- Geosoft Oasis Montaj Viewing Software
- Adobe Acrobat Reader
- Google Earth Viewer

6.2.5. Digital Copy of this Document (.PDF)

7. DATA PROCESSING AND PRESENTATION

All in-field and post-field data processing was carried out using Aeroquest proprietary data processing software and Geosoft Oasis Montaj software. Maps were generated using 36-inch wide Hewlett Packard ink-jet plotters.

7.1. Base Map

The geophysical maps accompanying this report are based on positioning in the NAD83 datum. The survey geodetic GPS positions have been projected using the Universal Transverse Mercator projection in Zone 11 North. A summary of the map datum and projection specifications is given following:

- Ellipse: GRS 1980
- Ellipse major axis: 6378137m eccentricity: 0.081819191
- Datum: North American 1983 - Canada Mean
- Datum Shifts (x,y,z) : 0, 0, 0 metres
- Map Projection: Universal Transverse Mercator Zone 11 (Central Meridian -117ºW)
- Central Scale Factor: 0.9996
- False Easting, Northing: 500,000m, 0m

For reference, the latitude and longitude in WGS84 are also noted on the maps.

The background vector topography was obtained from Natural Resources Canada 1:50,000 National Topographic Database (NTDB). The background shading was derived from NASA Shuttle Radar Topography Mission (SRTM) 90 metres resolution DEM data.

7.2. Flight Path & Terrain Clearance

The position of the survey helicopter was directed by use of the Global Positioning System (GPS). Positions were updated five times per second (5 Hz) and expressed as WGS84 latitude and longitude calculated from the raw pseudo range derived from the C/A code signal. The instantaneous GPS flight path, after conversion to UTM co-ordinates, is drawn using linear interpolation between the x/y positions. The terrain clearance was maintained with reference to the radar altimeter. The raw Digital Terrain Model (DTM) was derived by taking the GPS survey elevation and subtracting the radar altimeter terrain clearance values. The calculated topography elevation values are relative and are not tied in to surveyed geodetic heights.

Each flight included at least two high elevation 'background' checks. These high elevation checks are to ensure that the gain of the system remained constant and within specifications.

7.3. Electromagnetic Data

The raw streaming data, sampled at a rate of 36,000 Hz (120 channels, 300 times per second) was reprocessed using a proprietary software algorithm developed and owned by Aeroquest Limited. Processing involves the compensation of the X and Z component data for the primary field waveform. Coefficients for this compensation for the system transient are determined and applied to the stream data. The stream data are then pre-filtered, stacked, binned to the 33 on and off-time channels and checked for the effectiveness of the compensation and stacking processes. The stacked data is then filtered, levelled and split up into the individual line segments. Further base level adjustments may be carried out at this stage. The filtering of the stacked data is designed to remove or minimize high frequency noise that can not be sourced from the geology.

The final field processing step was to merge the processed EM data with the other data sets into a Geosoft GDB file. The EM fiducial is used to synchronize the two datasets. The processed channels are merged into 'array format; channels in the final Geosoft database as Zon, Zoff, Xon, and Xoff.

Apparent bedrock EM anomalies were interpreted with the aid of an auto-pick from positive peaks and troughs in the off-time Z channel responses correlated with X channel responses. The auto-picked anomalies were reviewed and edited by a geophysicist on a line by line basis to discriminate between thin and thick conductor types. Anomaly picks locations were migrated and removed as required. This process ensures the optimal representation of the conductor centres on the maps.

At each conductor pick, estimates of the off-time conductance have been generated based on a horizontal plate source model for those data points along the line where the response amplitude is sufficient to yield an acceptable estimate. Some of the EM anomaly picks do not display a Tau value; this is due to the inability to properly define the decay of the conductor usually because of low signal amplitudes. Each conductor pick was then classified according to a set of seven ranges of calculated off-time conductance values. For high conductance sources, the on-time conductance values may be used, since it provides a more accurate measure of high-conductance sources. Each symbol is also given an identification letter label, unique to each flight line. Conductor picks that did not yield an acceptable estimate of off-time conductance due to a low amplitude response were classified as a low conductance source. Please refer to the anomaly symbol legend located in the margin of the maps.

7.4. Magnetic Data

Prior to any levelling the magnetic data was subjected to a lag correction of -0.1 seconds and a spike removal filter. The filtered aeromagnetic data were then corrected for diurnal variations using the magnetic base station and the intersections of the tie lines. No corrections for the regional reference field (IGRF) were applied. The corrected profile data were interpolated on to a grid using a random grid technique with a grid cell size of 25 metres. The final levelled grid provided the basis for threading the presented contours which have a minimum contour interval of 20 nT.

8. GENERAL COMMENTS

The survey was successful in mapping the magnetic and conductive properties of the geology throughout the survey area. Below is a brief interpretation of the results. For a detailed interpretation please contact Aeroquest Limited.

8.1. MAGNETIC RESPONSE

The magnetic data provide a high resolution map of the distribution of the magnetic mineral content of the survey area. This data can be used to interpret the location of geological contacts and other structural features such as faults and zones of magnetic alteration. The sources for anomalous magnetic responses are generally thought to be predominantly magnetite because of the relative abundance and strength of response (high magnetic susceptibility) of magnetite over other magnetic minerals such as pyrrhotite.

8.2. EM ANOMALIES

The EM anomalies on the maps are classified by conductance (as described earlier in the report) and also by the thickness of the source. A thin, vertically orientated source produces a double peak anomaly in the z-component response and a positive to negative crossover in the x-component response (Figure 8). For a vertically orientated thick source (say, greater than 10 metres), the response is a single peak in the z-component response and a negative to positive crossover in the x-component response (Figure 9). Because of these differing responses, the AeroTEM system provides discrimination of thin and thick sources and this distinction is indicated on the EM anomaly symbols (N = thin and K = thick). Where multiple, closely spaced conductive sources occur, or where the source has a shallow dip, it can be difficult to uniquely determine the type (thick vs. thin) of the source (Figure 10). In these cases both possible source types may be indicated by picking both thick and thin response styles. For shallow dipping conductors the 'thin' pick will be located over the edge of the source, whereas the 'thick' pick will fall over the down dip 'heart' of the anomaly.

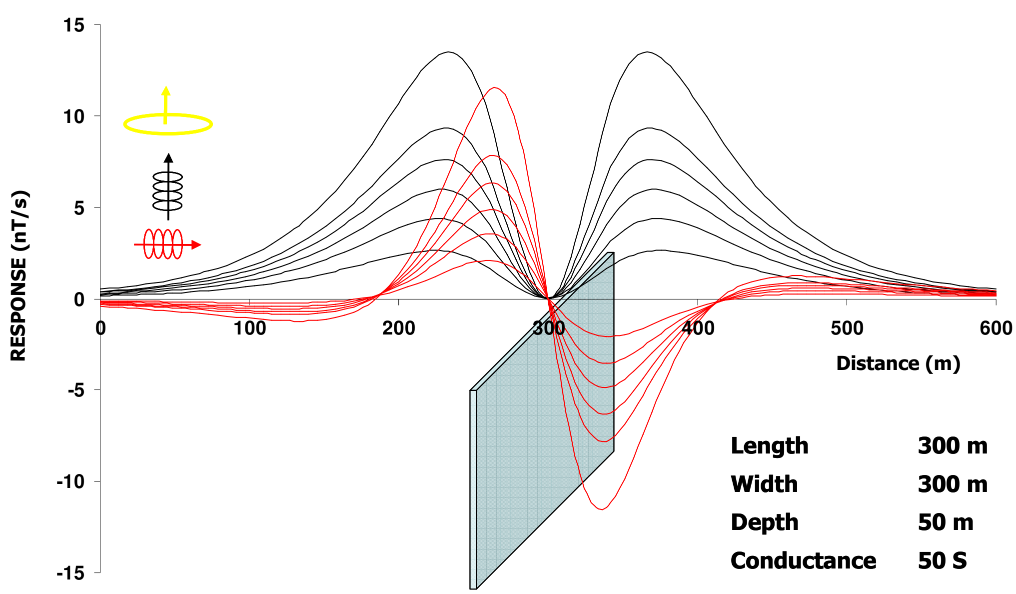


Figure 9. AeroTEM response to a 'thin' vertical conductor.

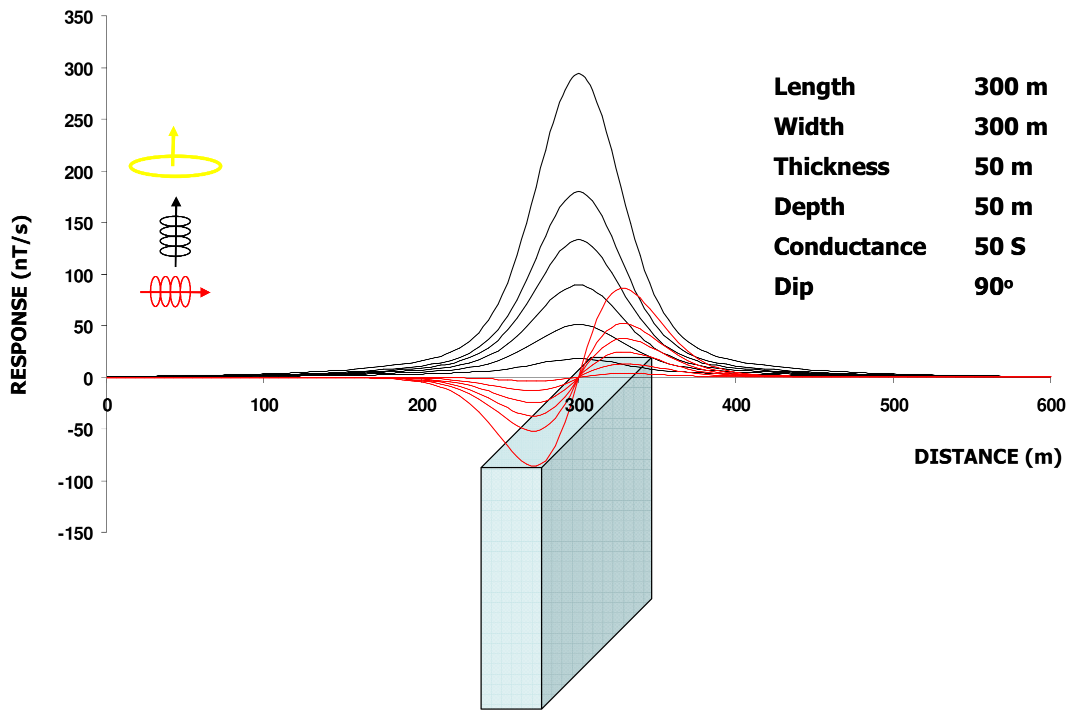


Figure 10. AeroTEM response for a 'thick' vertical conductor.

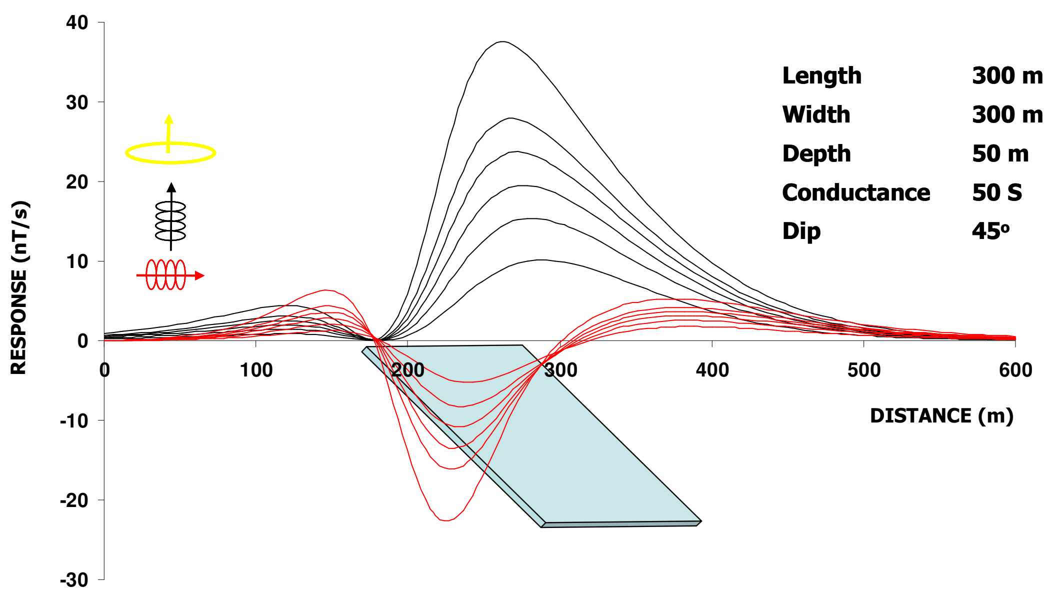


Figure 11. AeroTEM response over a 'thin' dipping conductor.

All cases should be considered when analyzing the interpreted picks and prioritizing for follow-up. Specific anomalous responses which remain as high priority should be subjected to numerical modeling prior to drill testing to determine the dip, depth and probable geometry of the source.

9. TECHNICAL DATA & INTERPRETATION OF SURVEY.

The purpose of the Chenier airborne time domain electromagnetic and magnetic survey was to map the geologic structures within the claim block related to mineralization. The magnetic survey shows an overall NE trend in the geology. The southern part of the survey block is slightly more complex with a prominent magnetic low trending ESE across the property. For the most part the property has minimal electromagnetic response. A broad anomaly NS trending anomaly in the SW of the property is coincident with a magnetic low area. A more discrete response at south end of this conductive feature is coincident with a magnetic high feature. A small low amplitude response in the SE of the property lies within the ESE trending magnetic low feature. The thin linear response dominating the NE of the property is from a powerline along the highway. By combining the information from airborne geophysics with knowledge of the local geology these results should provide a starting point for the next phase of exploration. This will likely involve ground follow up in the form of prospecting and/or ground geophysics followed by drilling.

Respectfully submitted,

Sean Walker
Aeroquest Limited
December, 2007

APPENDIX 1: STATEMENT OF QUALIFICATIONS

I, Sean Walker, M. Sc. Do hereby certify that:

1. I attained the degree of Master of Science in geophysics from the University of British Columbia, Vancouver, British Columbia in 1999.
2. I hold an Honours BSc. in Geology and Physics from McMaster University, Hamilton, Ontario (1996).
3. I am a member of the Society of Exploration Geophysicists.
4. I have worked as a geophysicist for a total of 8 years since my graduation from university, 1 year as a Field Geophysicist with Frontier Geosciences (North Vancouver, BC), 4 years as project geophysicist with Kenencott Canada Exploration Inc. (Vancouver, BC), 2 years as a Research Geophysicist with Sky Research Inc. (Vancouver, BC) and 1 year as a Senior Geophysicist with Aeroquest Limited (Vancouver, BC).
5. I performed QA/QC and interpreted the airborne geophysical data collected over the Chenier Property.
6. I am responsible for the preparation of the report entitled:

Dated this 10th Day of December, 2007.

Sean Walker

APPENDIX 2: STATEMENT OF EXPENDITURES

Airborne Electromagnetic and Magnetic Survey flown from April 28, 2007 to May 6, 2007.

900 line kilometres times $135.00 per kilometre = $121,500.00 exclusive of down time and report writing and GST.

APPENDIX 3: SURVEY BOUNDARIES

The following table presents the survey block boundaries. All geophysical data presented in this report have been windowed to these outlines. X and Y positions are in NAD83 UTM Zone 11N.

Chenier

X	Y
350726.67	5461400.89
341290.60	5461652.46
341680.13	5472394.39
351203.06	5472058.23

APPENDIX 4: MINING CLAIMS

The following table outlines Kootenay Gold Corp.'s current mineral tenures in the project area.

From Government of British Columbia Mineral Titles Online (December 2007)

Tenure Number	Claims Name	Owner	Good To Date	Area (Ha)
534607	CHEN	Kootenay Gold Corp.	2010/mar/19	505.587
526693	CHEN 106	Kootenay Gold Corp.	2010/mar/19	484.241
526697	CHEN 206	Kootenay Gold Corp.	2010/mar/19	442.128
518428	CHENIER 1	Kootenay Gold Corp.	2010/mar/19	505.433
518429	CHENIER 2	Kootenay Gold Corp.	2010/mar/19	505.437
518430	CHENIER 3	Kootenay Gold Corp.	2010/mar/19	505.596
518431	CHENIER 4	Kootenay Gold Corp.	2010/mar/19	505.599
518432	CHENIER 5	Kootenay Gold Corp.	2010/mar/19	505.516
518434	CHENIER 6	Kootenay Gold Corp.	2010/mar/19	505.719
518435	CHENIER 7	Kootenay Gold Corp.	2010/mar/19	126.43
554715	CHENIER 8	Kootenay Gold Corp.	2010/mar/19	526.17
554717	CHENIER 9	Kootenay Gold Corp.	2010/mar/19	526.171
554718	CHENIER 10	Kootenay Gold Corp.	2010/mar/19	484.022
554719	CHENIER 11	Kootenay Gold Corp.	2010/mar/19	462.762

APPENDIX 5: DESCRIPTION OF DATABASE FIELDS

The GDB file is a Geosoft binary database. In the database, the Survey lines and Tie Lines are prefixed with an "L" for "Line" and "T" for "Tie".

COLUMN	UNITS	DESCRIPTOR
Line		Line number
Flight		Flight #
emfid		AERODAS Fiducial
utctime	hh:mm:ss.ss	UTC time
x	m	UTM Easting (NAD83, Zone 11N)
y	m	UTM Northing (NAD83, Zone 11N)
bheight	m	Terrain clearance of EM bird
dtm	m	Digital Terrain Model
magf	nT	Final levelled total magnetic intensity
Basemagf	nT	Base station total magnetic intensity
Zoff	nT/s	Processed Streaming Off-Time Z component Channels 0-16
Xoff	nT/s	Processed Streaming Off-Time X component Channels 0-16
Anom_labels		Alphanumeric label of conductor pick
Off_Con	S	Off-time conductance at conductor pick
Off_Tau	µs	Off-time decay constant at conductor pick
Anom_ID		Anomaly Character (K= thicK, N = thiN)
grade		Classification from 1-7 based on conductance of conductor pick
pwrline		powrline monitor data channel
Off_allcon	S	Off-time conductance
Off_AllTau	µs	Off-time decay constant

APPENDIX 6: AEROTEM ANOMALY LISTING

Chenier Block

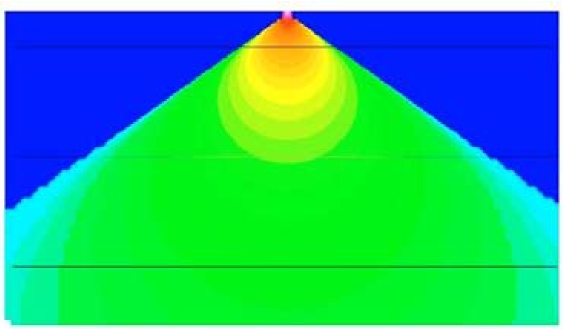
line	emfid	utctime	x	y	bheight	magf	Anom Labels	Off Con	Off Tau	Anom ID	Grade	pwrline
20720	602670	22.738	343988.86	5465122.68	58.89	55501.82	A	0.403	63.519	K	1	-41
20870	208890	21.548	344893.81	5463658.29	41.73	55836.35	A	0.348	58.999	K	1	-47
20960	358950	18.979	345180.49	5462702.56	40.28	55535.67	A	0.13	36.035	K	1	-35
20970	199950	18.832	345084.94	5462614.92	28.62	55394.05	A			K	1	-37

APPENDIX 7: AEROTEM DESIGN CONSIDERATIONS

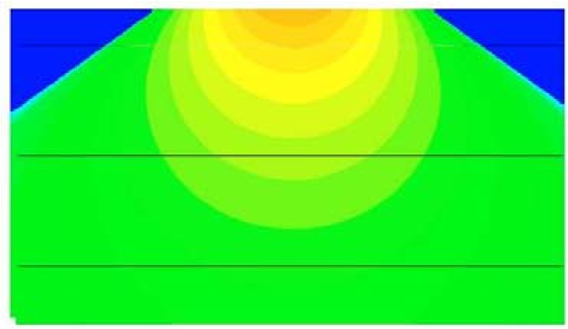
Helicopter-borne EM systems offer an advantage that cannot be matched from a fixed-wing platform. The ability to fly at slower speed and collect data with high spatial resolution, and with great accuracy, means the helicopter EM systems provide more detail than any other EM configuration, airborne or ground-based. Spatial resolution is especially important in areas of complex geology and in the search for discrete conductors. With the advent of helicopter-borne high-moment time domain EM systems the fixed wing platforms are losing their *only* advantage – depth penetration.

Advantage 1 – Spatial Resolution

The AeroTEM system is specifically designed to have a small footprint. This is accomplished through the use of concentric transmitter-receiver coils and a relatively small diameter transmitter coil (5 m). The result is a highly focused exploration footprint, which allows for more accurate "mapping" of discrete conductors. Consider the transmitter primary field images shown in Figure 1, for AeroTEM versus a fixed-wing transmitter.



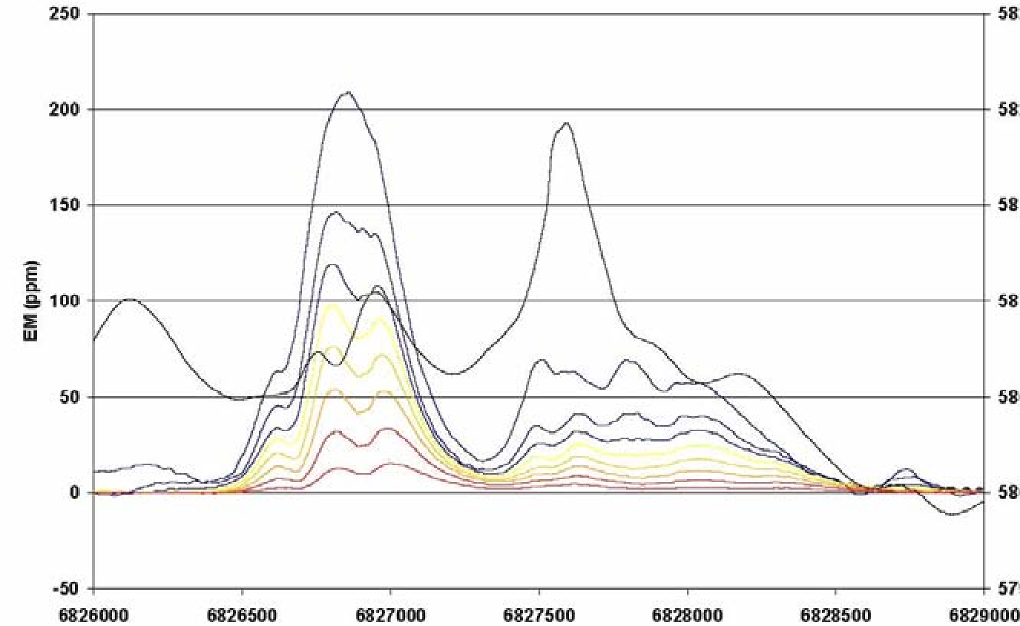
The footprint of AeroTEM at the earth's surface is roughly 50m on either side of transmitter



The footprint of a fixed-wing system is roughly 150 m on either side of the transmitter

Figure 1. A comparison of the footprint between AeroTEM and a fixed-wing system, highlights the greater resolution that is achievable with a transmitter located closer to the earth's surface. The AeroTEM footprint is one third that of a fixed-wing system and is symmetric, while the fixed-wing system has even lower spatial resolution along the flight line because of the separated transmitter and receiver configuration.

At first glance one may want to believe that a transmitter footprint that is distributed more evenly over a larger area is of benefit in mineral exploration. In fact, the opposite is true; by energizing a larger surface area, the ability to energize and detect discrete conductors is reduced. Consider, for example, a comparison between AeroTEM and a fixed-wing system over the Mesamax Deposit (1,450,000 tonnes of 2.1% Ni, 2.7% Cu, 5.2 g/t Pt/Pd). In a test survey over three flight lines spaced 100 m apart, AeroTEM detected the Deposit on all three flight lines. The fixed-wing system detected the Deposit only on two flight lines. In exploration programs that seek to expand the flight line spacing in an effort to reduce the cost of the airborne survey, discrete conductors such as the Mesamax Deposit can go undetected. The argument often put forward in favour of using fixed-wing systems is that because of their larger footprint, the flight line spacing can indeed be widened. Many fixed-wing surveys are flown at 200 m or 400 m. Much of the survey work performed by Aeroquest has been to survey in areas that were previously flown at these wider line spacings. One of the reasons for AeroTEM's impressive discovery record has been the strategy of flying closely spaced lines and finding all the discrete near-surface conductors. These higher resolution surveys are being flown within existing mining camps, areas that improve the chances of discovery.



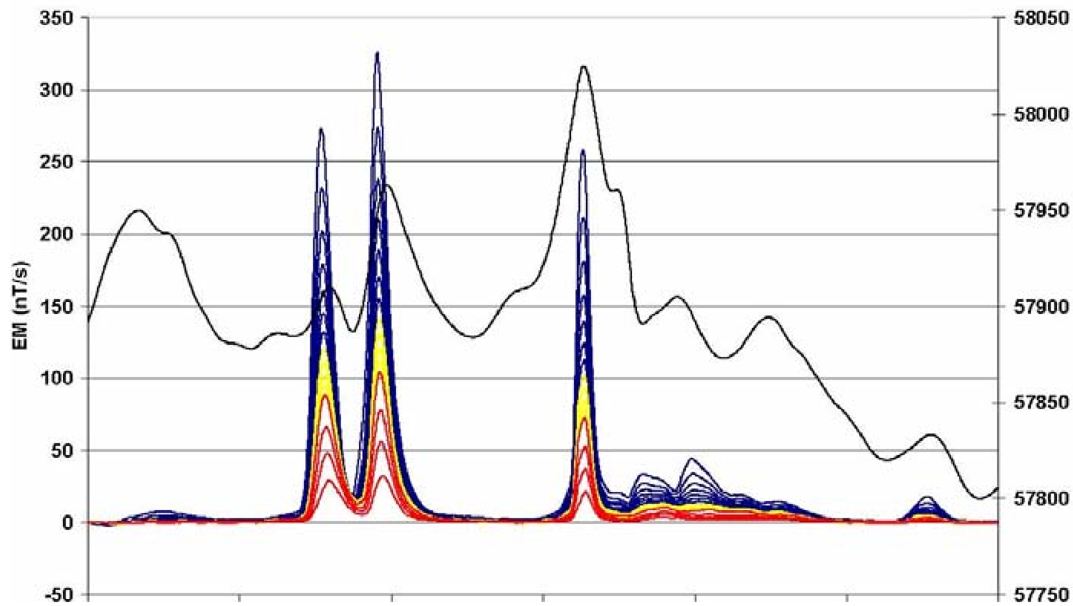


Figure 2. Fixed-wing (upper) and AeroTEM (lower) comparison over the eastern limit of the Mesamax Deposit, a Ni-Cu-PGE zone located in the Raglan nickel belt and owned by Canadian Royalties. Both systems detected the Deposit further to the west where it is closer to surface.

The small footprint of AeroTEM combined with the high signal to noise ratio (S/N) makes the system more suitable to surveying in areas where local infrastructure produces electromagnetic noise, such as power lines and railways. In 2002 Aeroquest flew four exploration properties in the Sudbury Basin that were under option by FNX Mining Company Inc. from Inco Limited. One such property, the Victoria Property, contained three major power line corridors.

The resulting AeroTEM survey identified all the known zones of Ni-Cu-PGE mineralization, and detected a response between two of the major power line corridors but in an area of favourable geology. Three boreholes were drilled to test the anomaly, and all three intersected sulphide. The third borehole encountered 1.3% Ni, 6.7% Cu, and 13.3 g/t TPMs over 42.3 ft. The mineralization was subsequently named the Powerline Deposit.

The success of AeroTEM in Sudbury highlights the advantage of having a system with a small footprint, but also one with a high S/N. This latter advantage is achieved through a combination of a high-moment (high signal) transmitter and a rigid geometry (low noise). Figure 3 shows the Powerline Deposit response and the response from the power line corridor at full scale. The width of power line response is less than 75 m.

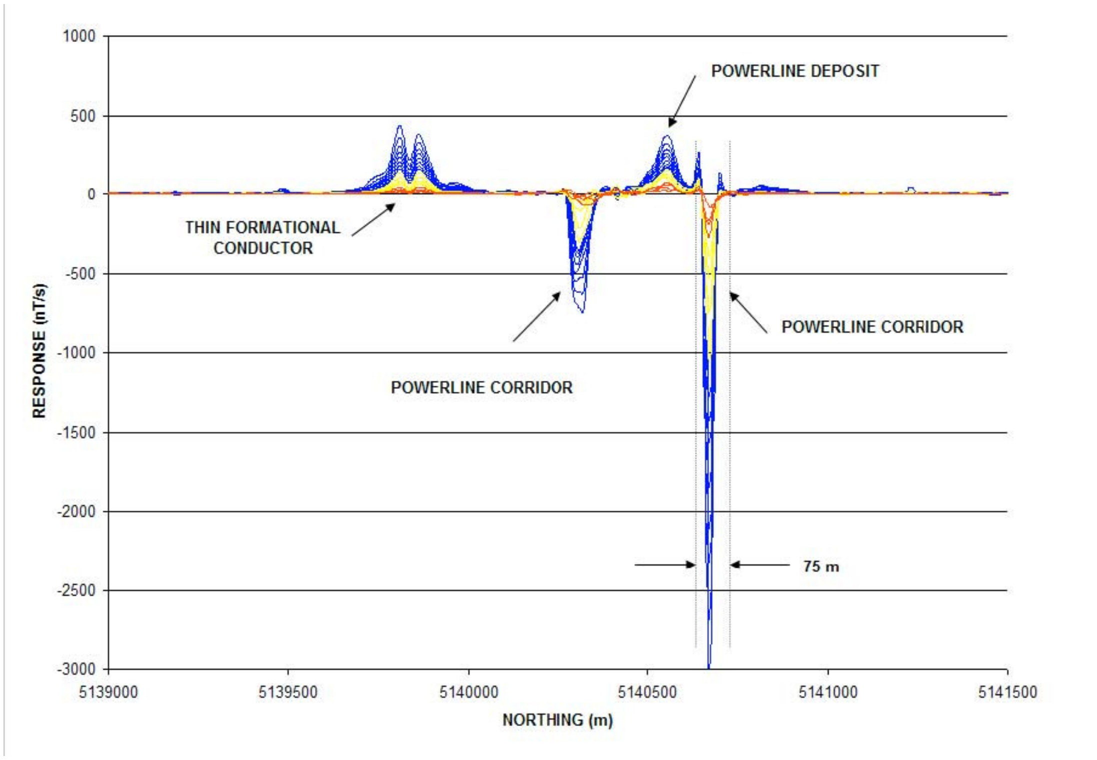


Figure 3. The Powerline Deposit is located between two major power line corridors, which make EM surveying problematic. Despite the strong response from the power line, the anomaly from the Deposit is clearly detected. Note the thin formational conductor located to the south. The only way to distinguish this response from that of two closely spaced conductors is by interpreting the X-axis coil response.

Advantage 2 – Conductance Discrimination

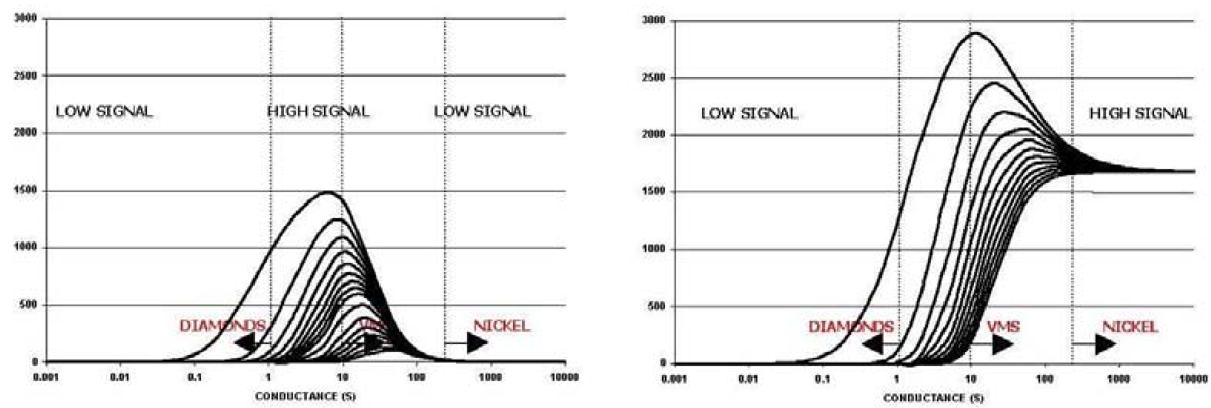
The AeroTEM system features full waveform recording and as such is able to measure the on-time response due to high conductance targets. Due to the processing method (primary field removal), there is attenuation of the response with increasing conductance, but the AeroTEM on-time measurement is still superior to systems that rely on lower base frequencies to detect high conductance targets, but do not measure in the on-time.

The peak response of a conductive target to an EM system is a function of the target conductance and the EM system base frequency. For time domain EM systems that measure only in the off-time, there is a drop in the peak response of a target as the base frequency is lowered for all conductance values below the peak system response. For example, the AeroTEM peak response occurs for a 10 S conductor in the early off-time and 100 S in the late off-time for a 150 Hz base frequency. Because base frequency and conductance form a linear relationship when considering the peak response of any EM system, a drop in base frequency of 50% will double the conductance at which an EM system shows its peak response. If the base frequency were lowered from 150 Hz to 30 Hz there would be a fivefold increase in conductance at which the peak response of an EM occurred.

However, in the search for highly conductive targets, such as pyrrhotite-related Ni-Cu-PGM deposits, a fivefold increase in conductance range is a high price to pay because the signal level to lower conductance targets is reduced by the same factor of five. For this reason, EM systems that operate with low base frequencies are not suitable for general exploration unless the target conductance is more than 100 S, or the target is covered by conductive overburden.

Despite the excellent progress that has been made in modeling software over the past two decades, there has been little work done on determining the optimum form of an EM system for mineral exploration. For example, the optimum configuration in terms of geometry, base frequency and so remain unknown. Many geophysicists would argue that there is no single ideal configuration, and that each system has its advantages and disadvantages. We disagree.

When it comes to detecting and discriminating high-conductance targets, it is necessary to measure the pure in-phase response of the target conductor. This measurement requires that the measured primary field from the transmitter be subtracted from the total measured response such that the secondary field from the target conductor can be determined. Because this secondary field is in-phase with the transmitter primary field, it must be made while the transmitter is turned on and the transmitter current is changing. The transmitted primary field is several orders of magnitude larger than the secondary field. AeroTEM uses a bucking coil to reduce the primary field at the receiver coils. The only practical way of removing the primary field is to maintain a rigid geometry between the transmitter, bucking and receiver coils. This is the main design consideration of the AeroTEM airframe and it is the only time domain airborne system to have this configuration.



The off-time AeroTEM response for the 16 channel configuration.

The on-time response assuming 100% removal of the measured primary field.

Figure 4. The off-time and on-time response nomogram of AeroTEM for a base frequency of 150 Hz. The on-time response is much stronger for higher conductance targets and this is why on-time measurements are more important than lower frequencies when considering high conductance targets in a resistive environment.

Advantage 3 – Multiple Receiver Coils

AeroTEM employs two receiver coil orientations. The Z-axis coil is oriented parallel to the transmitter coil and both are horizontal to the ground. This is known as a maximum coupled configuration and is optimal for detection. The X-axis coil is oriented at right angles to the transmitter coil and is oriented along the line-of-flight.

This is known as a minimum coupled configuration, and provides information on conductor orientation and thickness. These two coil configurations combined provide important information on the position, orientation, depth, and thickness of a conductor that cannot be matched by the traditional geometries of the HEM or fixed-wing systems. The responses are free from a system geometric effect and can be easily compared to model type curves in most cases. In other words, AeroTEM data is very easy to interpret. Consider, for example, the following modeled profile:

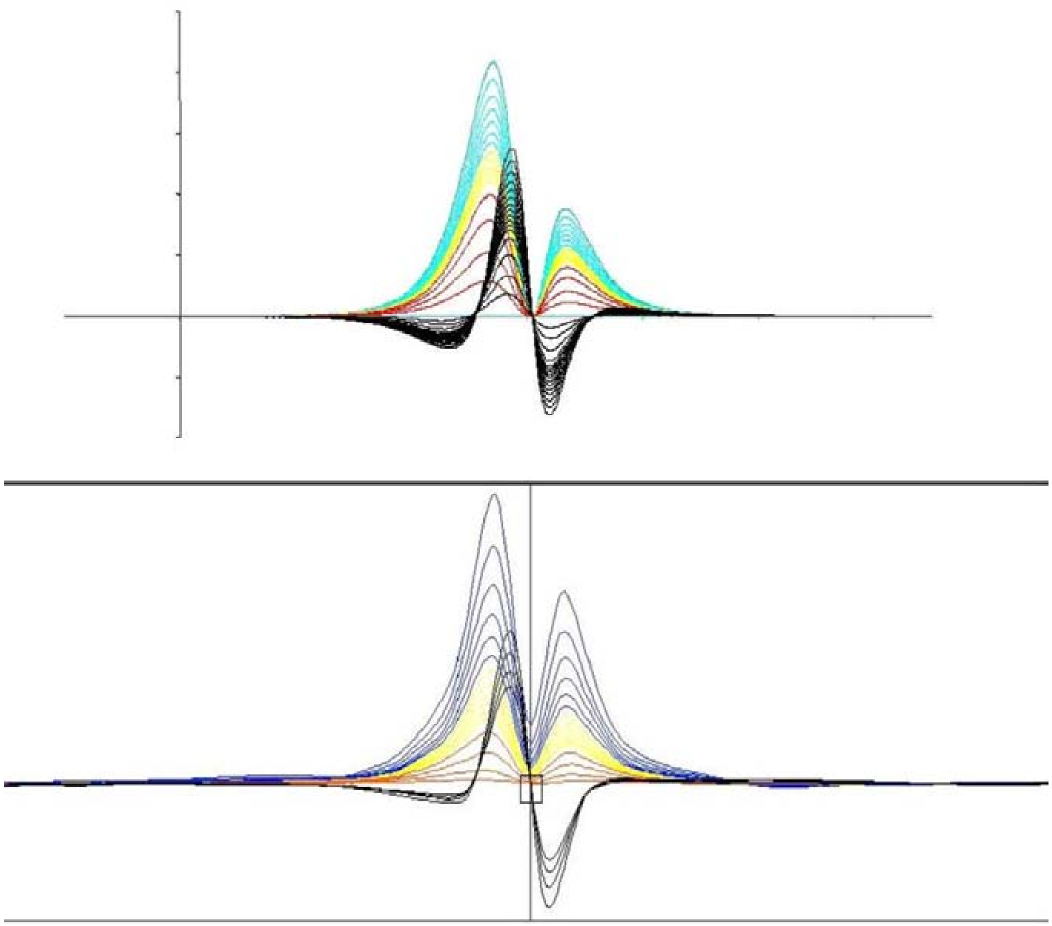


Figure 5. Measured (lower) and modeled (upper) AeroTEM responses are compared for a thin steeply dipping conductor. The response is characterized by two peaks in the Z-axis coil, and a cross-over in the X-axis coil that is centered between the two Z-axis peaks. The conductor dips toward the higher amplitude Z-axis peak. Using the X-axis cross-over is the only way of differentiating the Z-axis response from being two closely spaced conductors.

HEM versus AeroTEM

Traditional helicopter EM systems operate in the frequency domain and benefit from the fact that they use narrowband as opposed to wide-band transmitters. Thus all of the energy from the transmitter is concentrated in a few discrete frequencies. This allows the systems to achieve excellent depth penetration (up to 100 m) from a transmitter of modest power. The Aeroquest Impulse system is one implementation of this technology.

The AeroTEM system uses a wide-band transmitter and delivers more power over a wide frequency range. This frequency range is then captured into 16 time channels, the early channels containing the high frequency information and the late time channels containing the low frequency information down to the system base frequency. Because frequency domain HEM systems employ two coil configurations (coplanar and coaxial) there are only a maximum of three comparable frequencies per configuration, compared to 16 AeroTEM off-time and 12 AeroTEM on-time channels.

Figure 6 shows a comparison between the Dighem HEM system (900 Hz and 7200 Hz coplanar) and AeroTEM (Z-axis) from surveys flown in Raglan, in search of highly conductive Ni-Cu-PGM sulphide. In general, the AeroTEM peaks are sharper and better defined, in part due to the greater S/N ratio of the AeroTEM system over HEM, and also due to the modestly filtered AeroTEM data compared to HEM. The base levels are also better defined in the AeroTEM data. AeroTEM filtering is limited to spike removal and a 5-point smoothing filter. Clients are also given copies of the raw, unfiltered data.

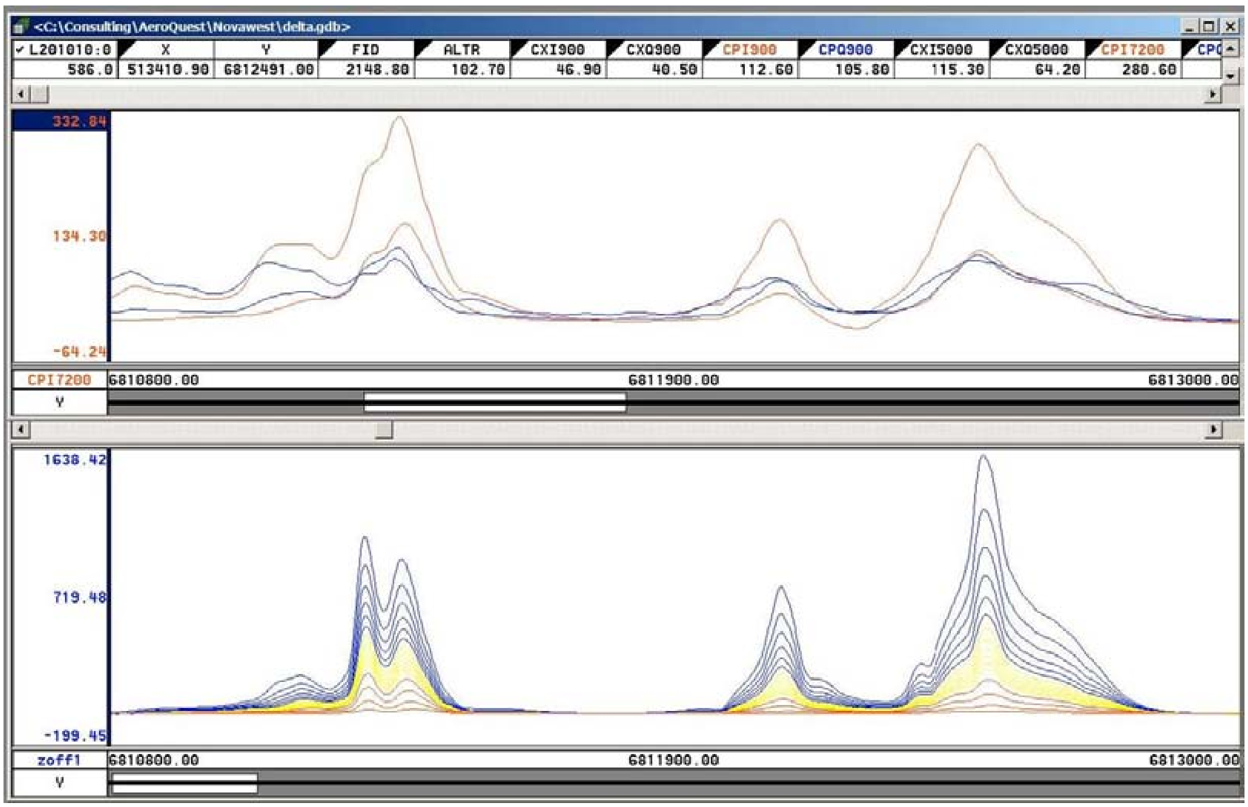


Figure 6. Comparison between Dighem HEM (upper) and AeroTEM (lower) surveys flown in the Raglan area. The AeroTEM responses appear to be more discrete, suggesting that the data is not as heavily filtered as the HEM data. The S/N advantage of AeroTEM over HEM is about 5:1.

Aeroquest Limited is grateful to the following companies for permission to publish some of the data from their respective surveys: Wolfden Resources, FNX Mining Company Inc, Canadian Royalties, Nova West Resources, Aurogin Resources, Spectrem Air. Permission does not imply an endorsement of the AeroTEM system by these companies.

APPENDIX 8: AEROTEM INSTRUMENTATION SPECIFICATION SHEET

AEROTEM Helicopter Electromagnetic System

System Characteristics

- Transmitter: Triangular Pulse Shape Base Frequency 150 Hz
- Tx On Time - 1,150 (150 Hz) µs
- Tx Off Time - 2,183 (150 Hz) µs
- Loop Diameter - 5 m
- Peak Current - 250 A
- Peak Moment - 38,800 NIA
- Typical Z Axis Noise at Survey Speed = 5 nT peak to peak
- Sling Weight: 270 Kg
- Length of Tow Cable: 40 m
- Bird Survey Height: 30 m nominal

Receiver

- Two Axis Receiver Coils (x, z) positioned at centre of transmitter loop
- Selectable Time Delay to start of first channel 21.3 , 42.7, or 64.0 ms

Display & Acquisition

- AERODAS Digital recording at 120 samples per decay curve at a maximum of 300 curves per second (27.778µs channel width)
- RMS Channel Widths: 52.9,132.3, 158.7, 158.7, 317.5, 634.9 µs
- Recording & Display Rate = 10 readings per second.
- On-board display - six channels Z-component and 1 X-component

System Considerations

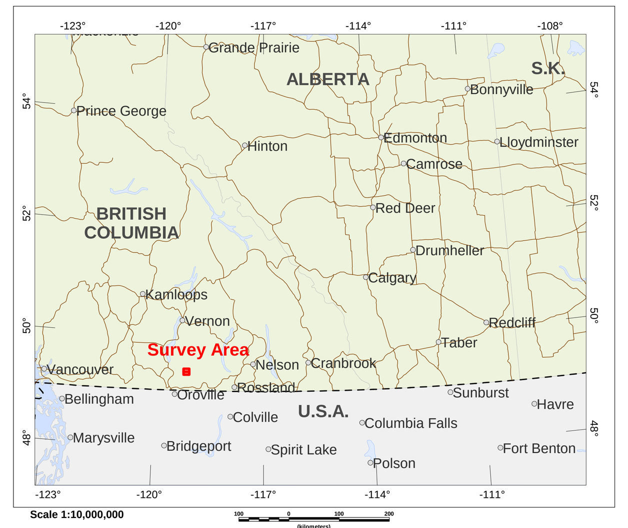
Comparing a fixed-wing time domain transmitter with a typical moment of 500,000 NIA flying at an altitude of 120 m with a Helicopter TDEM at 30 m, notwithstanding the substantial moment loss in the airframe of the fixed wing, the same penetration by the lower flying helicopter system would only require a sixty-fourth of the moment. Clearly the AeroTEM system with nearly 40,000 NIA has more than sufficient moment. The airframe of the fixed wing presents a response to the towed bird, which requires dynamic compensation. This problem is non-existent for AeroTEM since transmitter and receiver positions are fixed. The AeroTEM system is completely portable, and can be assembled at the survey site within half a day.

Grid North
NAD83-Zone11

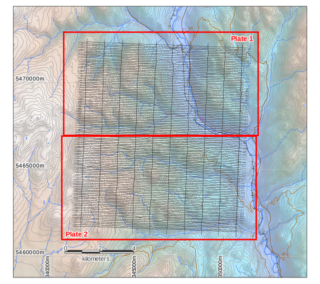
The topographic data base was derived from 1:50000 Natural Resources Canada NTDB data.

Inset data derived from Natural Resources Canada 'Atlas of Canada Base Maps'

This map accompanies the technical report entitled 'Report on a Helicopter-Borne Magnetic and Electromagnetic Survey, Chenier Property, Southern British Columbia', by Aeroquest Limited, July 2007



Scale 1:10,000,000



AeroTEM Profiles

positive excursion to top and right, 1mm=5nT/s

Z2 Off-Time Channel
Z3 Off-Time Channel
Z4 Off-Time Channel
Z6 Off-Time Channel
Z8 Off-Time Channel
Z10 Off-Time Channel
Z12 Off-Time Channel
Z13 Off-Time Channel
Z14 Off-Time Channel
Z15 Off-Time Channel
Z16 Off-Time Channel

Off-Time Anomaly Symbols

>50S ....
35-50S ....
20-35S ....
10-20S ....
5-10S ....
1-5S ....
<1S ....
Cultural Sources.....

anomaly label A
decay constant (µs) 125
thicK/thiN source K
off-time conductance (S) 36

SURVEY SPECIFICATIONS:
- Survey flown: April 28 - May 6, 2007
- Traverse line spacing: 100 metres
- Traverse line direction: E-W (92º)
- Nominal EM bird height: 30 metres
- Aircraft: Aerospatiale A-Star 350B2 (C-FPTG)

INSTRUMENTATION:
- Data acquisition: ADAS & RMS DGR-33
- Magnetometer: Geometrics G-823A cesium vapour
  - Installation: Towed bird 17 m above EM bird
  - Sensitivity: .001 nanoTesla
- Electromagnetics: AeroTEM II System (BRAVO)
  - Configuration: Towed bird

NAVIGATION:
- Navigation: Differential Global Positioning System (DGPS)
- Navigation equipment: AGNAV with MID-TECH RX400p receiver
- Radar Altimeter: Terra TRA3000/TRI-30

DATA PROCESSING
- Magnetics: diurnal, tieline and micro-leveling corrections

POSITIONING
- Datum: NAD83
  - Major Axis: 6378137.000
  - Eccentricity: 0.081819191

MAP PROJECTION
- Projection: Universal Transverse Mercator
- Central Meridian: 117°W (Zone 11)
- Central Scale Factor: 0.9996
- False Easting/Northing: 500,000m/0m

scale 1:10,000

200 0 200 400 600
metres
NAD83 / UTM zone 11N

Kootenay Gold Inc.

Rock Creek Area, British Columbia

AEROTEM OFF-TIME PROFILES

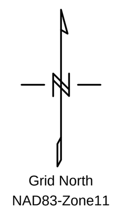
Chenier Block, Plate 1

NTS 082E06

AEROQUEST INTERNATIONAL
ADVANCED AIRBORNE GEOPHYSICS
7687 Bath Road, Mississauga, ON, CANADA L4T 3T1
Tel: (905) 672-9129 Fax: (905) 672-7083
www.aeroquest.ca

July 2007

EM Chenier 1



The topographic data base was derived from 1:50000 Natural Resources Canada NTDB data.

Inset data derived from Natural Resources Canada 'Atlas of Canada Base Maps'

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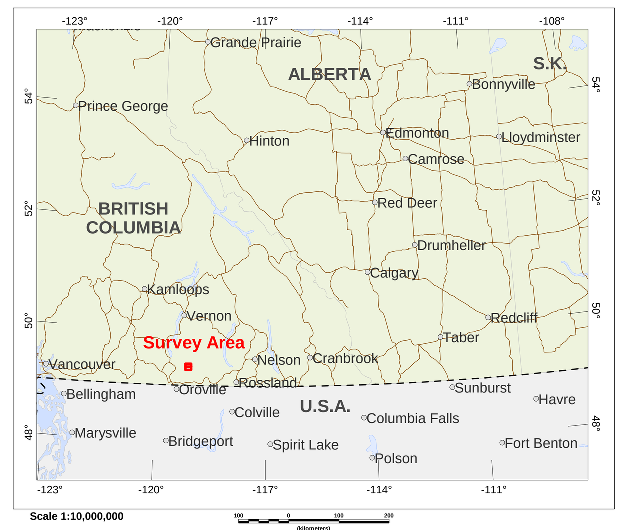

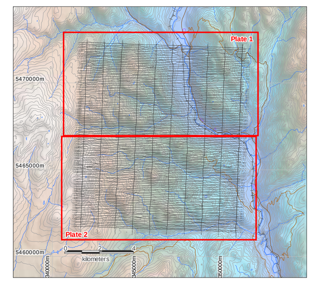

AeroTEM Profiles

positive excursion to top and right, 1mm=5nT/s

- Z2 Off-Time Channel
- Z3 Off-Time Channel
- Z4 Off-Time Channel
- Z6 Off-Time Channel
- Z8 Off-Time Channel
- Z10 Off-Time Channel
- Z12 Off-Time Channel
- Z13 Off-Time Channel
- Z14 Off-Time Channel
- Z15 Off-Time Channel
- Z16 Off-Time Channel

Off-Time Anomaly Symbols

- >50S ....
- 35-50S ....
- 20-35S ....
- 10-20S ....
- 5-10S ....
- 1-5S ....
- <1S ....
- Cultural Sources.....

anomaly label A 125 decay constant (μs)
thicK/thiN source K 36 off-time conductance (S)

SURVEY SPECIFICATIONS:
- Survey flown: April 28 - May 6, 2007
- Traverse line spacing: 100 metres
- Traverse line direction: E-W (92º)
- Nominal EM bird height: 30 metres
- Aircraft: Aerospatiale A-Star 350B2 (C-FPTG)

INSTRUMENTATION:
- Data acquisition: ADAS & RMS DGR-33
- Magnetometer: Geometrics G-823A cesium vapour
  - Installation: Towed bird 17 m above EM bird
  - Sensitivity: .001 nanoTesla
- Electromagnetics: AeroTEM II System (BRAVO)
  - Configuration: Towed bird

NAVIGATION:
- Navigation: Differential Global Positioning System (DGPS)
- Navigation equipment: AGNAV with MID-TECH RX400p receiver
- Radar Altimeter: Terra TRA3000/TRI-30

DATA PROCESSING
- Magnetics: diurnal, tieline and micro-leveling corrections

POSITIONING
- Datum: NAD83
  - Major Axis: 6378137.000
  - Eccentricity: 0.081819191

MAP PROJECTION
- Projection: Universal Transverse Mercator
- Central Meridian: 117°W (Zone 11)
- Central Scale Factor: 0.9996
- False Easting/Northing: 500,000m/0m

scale 1:10,000

200 0 200 400 600
metres
NAD83 / UTM zone 11N

Kootenay Gold Inc.
Rock Creek Area, British Columbia

AEROTEM OFF-TIME PROFILES

Chenier Block, Plate 2

NTS 082E06

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www.aeroquest.ca

July 2007

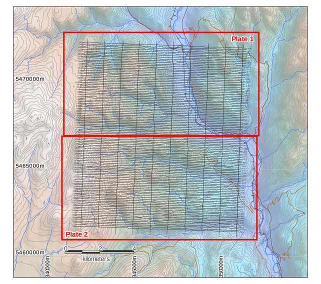
EM Chenier 2

Grid North
NAD83-Zone11

The topographic data base was derived from 1:50000 Natural Resources Canada NTDB data.

Inset data derived from Natural Resources Canada 'Atlas of Canada Base Maps'

This map accompanies the technical report entitled 'Report on a Helicopter-Borne Magnetic and Electromagnetic Survey, Chenier Property, Southern British Columbia', by Aeroquest Limited, July 2007



TMI Contour Interval

- Minimum 20nT
- 100 & 500nT
- 1000nT

Off-Time Anomaly Symbols

>50S ....
35-50S ....
20-35S ....
10-20S ....
5-10S ....
1-5S ....
<1S ....
Cultural Sources.....

anomaly label A, 125 decay constant (μs)
thicK/thiN source K, 36 off-time conductance (S)

TMI nT: 56956, 56369, 56247, 56159, 56095, 56046, 56011, 55982, 55959, 55941, 55924, 55909, 55895, 55882, 55871, 55860, 55850, 55840, 55830, 55820, 55810, 55801, 55793, 55785, 55776, 55767, 55757, 55746, 55735, 55724, 55712, 55700, 55685, 55666, 55642, 55614, 55584, 55545, 55478, 54923

SURVEY SPECIFICATIONS:
- Survey flown: April 28 - May 6, 2007
- Traverse line spacing: 100 metres
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- Data acquisition: ADAS & RMS DGR-33
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  - Installation: Towed bird 17 m above EM bird
  - Sensitivity: .001 nanoTesla
- Electromagnetics: AeroTEM II System (BRAVO)
  - Configuration: Towed bird

NAVIGATION:
- Navigation: Differential Global Positioning System (DGPS)
- Navigation equipment: AGNAV with MID-TECH RX400p receiver
- Radar Altimeter: Terra TRA3000/TRI-30

DATA PROCESSING
- Magnetics: diurnal, tieline and micro-leveling corrections

POSITIONING
- Datum: NAD83
  - Major Axis: 6378137.000
  - Eccentricity: 0.081819191

MAP PROJECTION
- Projection: Universal Transverse Mercator
- Central Meridian: 117°W (Zone 11)
- Central Scale Factor: 0.9996
- False Easting/Northing: 500,000m/0m

scale 1:10,000

200 0 200 400 600
metres
NAD83 / UTM zone 11N

Kootenay Gold Inc.
Rock Creek Area, British Columbia

TOTAL MAGNETIC INTENSITY

Chenier Block, Plate 1

NTS 082E06

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www.aeroquest.ca

July 2007

TMI Chenier 1

Grid North
NAD83-Zone11

The topographic data base was derived from 1:50000 Natural Resources Canada NTDB data.

Inset data derived from Natural Resources Canada 'Atlas of Canada Base Maps'

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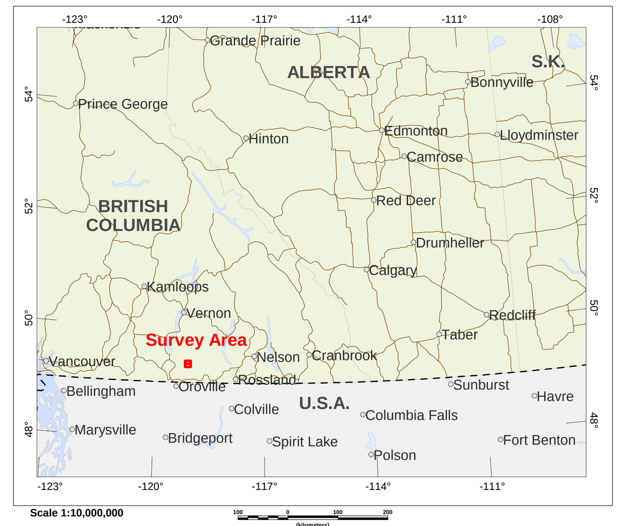
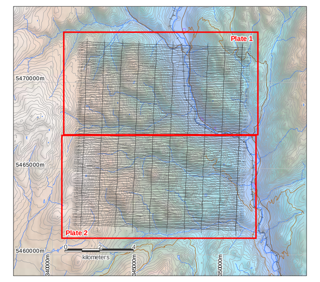


Scale 1:10,000,000

100 0 100 200 (kilometers) NAD83 / UTM zone 11N



TMI Contour Interval

- Minimum 20nT
- 100 & 500nT
- 1000nT

Off-Time Anomaly Symbols

- >50S ....
- 35-50S ....
- 20-35S ....
- 10-20S ....
- 5-10S ....
- 1-5S ....
- <1S ....
- Cultural Sources.....

anomaly label A, 125 decay constant (µs)
thicK/thiN source K, 36 off-time conductance (S)

TMI nT: 56956, 56369, 56247, 56159, 56095, 56046, 56011, 55982, 55959, 55941, 55924, 55909, 55895, 55882, 55871, 55860, 55850, 55840, 55830, 55820, 55810, 55801, 55793, 55785, 55776, 55767, 55757, 55746, 55735, 55724, 55712, 55700, 55685, 55666, 55642, 55614, 55584, 55545, 55478, 54923

SURVEY SPECIFICATIONS:
- Survey flown: April 28 - May 6, 2007
- Traverse line spacing: 100 metres
- Traverse line direction: E-W (92º)
- Nominal EM bird height: 30 metres
- Aircraft: Aerospatiale A-Star 350B2 (C-FPTG)

INSTRUMENTATION:
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scale 1:10,000

200 0 200 400 600 metres NAD83 / UTM zone 11N

Kootenay Gold Inc.
Rock Creek Area, British Columbia

TOTAL MAGNETIC INTENSITY

Chenier Block, Plate 2

NTS 082E06

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TMI Chenier 2

Grid North
NAD83-Zone11

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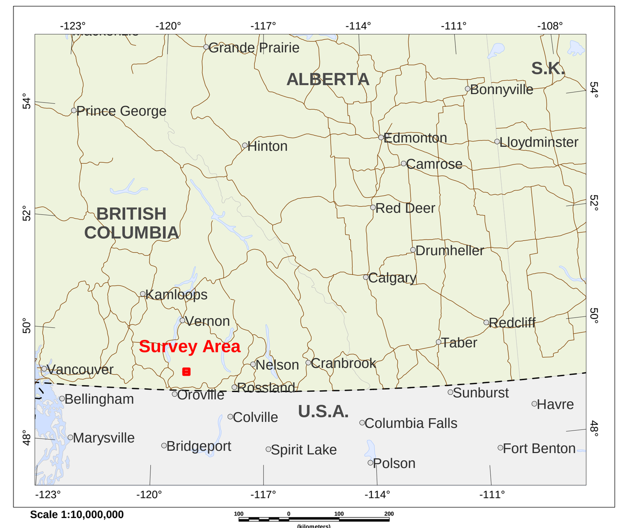

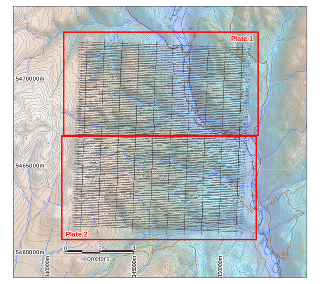

ZOFF Contour Interval

- 5nT/s
- 10nT/s
- 50nT/s

Off-Time Anomaly Symbols

- >50S
- 35-50S
- 20-35S
- 10-20S
- 5-10S
- 1-5S
- <1S
- Cultural Sources

anomaly label A, decay constant (µs) 125, thicK/thiN source K, off-time conductance (S) 36

ZOFF nT/s: 273.5, 72.4, 69.8, 67.2, 64.7, 62.1, 59.5, 56.9, 54.3, 51.7, 49.1, 46.6, 44.0, 41.4, 38.8, 36.2, 33.6, 31.0, 28.4, 25.9, 23.3, 20.7, 18.1, 15.5, 12.9, 10.3, 7.8, 5.2, 2.6, 0.0

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DATA PROCESSING
Magnetics: diurnal, tieline and micro-leveling corrections

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scale 1:10,000

200 0 200 400 600 metres
NAD83 / UTM zone 11N

Kootenay Gold Inc.
Rock Creek Area, British Columbia

AEROTEM
Z1 OFF-TIME
Chenier Block, Plate 1

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ZOFF Chenier 1

Grid North
NAD83-Zone11

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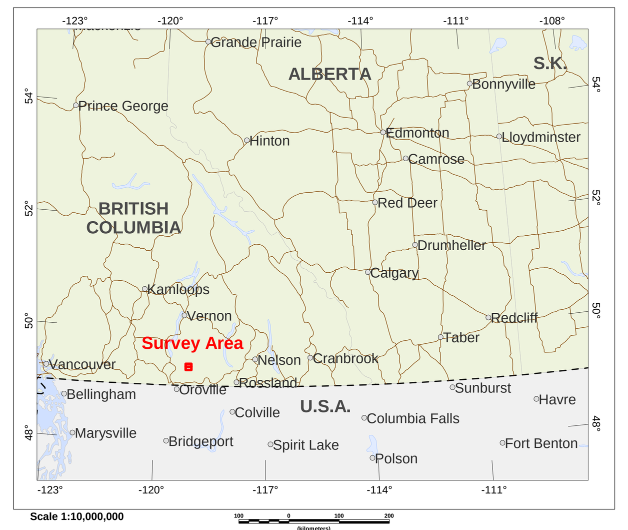
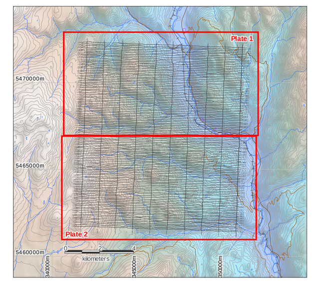


Scale 1:10,000,000



ZOFF Contour Interval

5nT/s
10nT/s
50nT/s

Off-Time Anomaly Symbols

Cultural Sources.....

anomaly label A 125 decay constant (µs)
thicK/thiN source K 36 off-time conductance (S)

ZOFF
nT/s

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scale 1:10,000

metres
NAD83 / UTM zone 11N

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AEROTEM
Z1 OFF-TIME
Chenier Block, Plate 2

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ZOFF Chenier 2